## This Page Is Inserted by IFW Operations and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

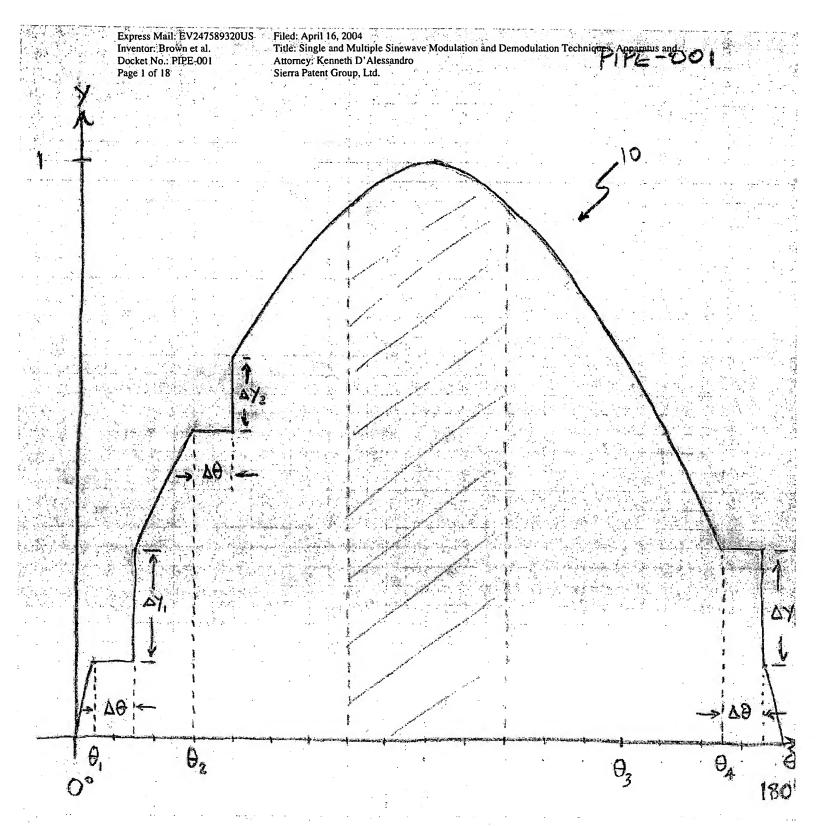
Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

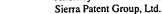
- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

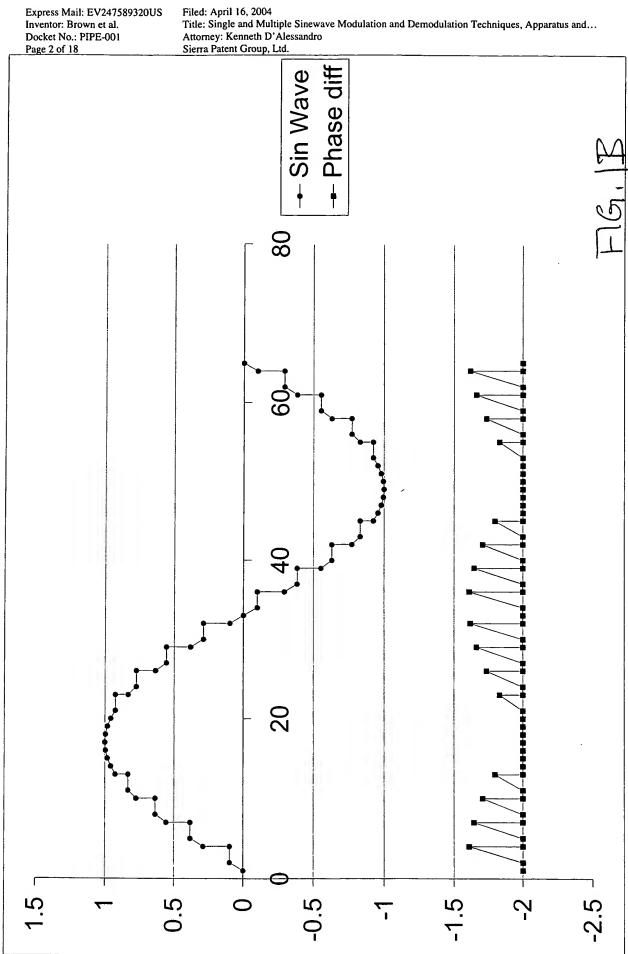
## IMAGES ARE BEST AVAILABLE COPY.

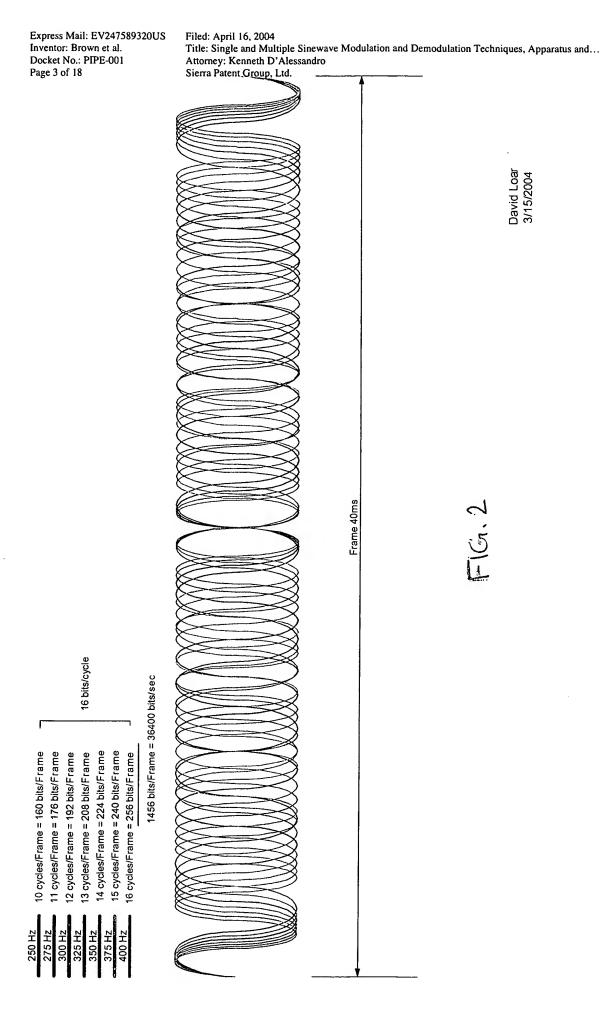
As rescanning documents will not correct images, please do not report the images to the Image Problem Mailbox.



Express Mail: EV247589320US Inventor: Brown et al. Docket No.: PIPE-001 Page 2 of 18



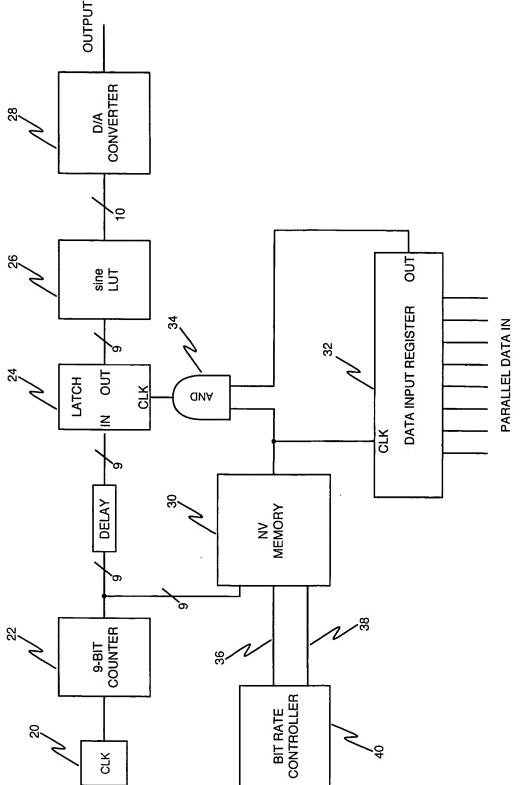




Express Mail: EV247589320US Inventor: Brown et al. Docket No.: PIPE-001

Page 4 of 18

Filed: April 16, 2004 Title: Single and Multiple Sinewave Modulation and Demodulation Techniques, Apparatus and...



Docket No.: PIPE-001 Page 5 of 18 Filed: April 16, 2004

Title: Single and Multiple Sinewave Modulation and Demodulation Techniques, Apparatus and...

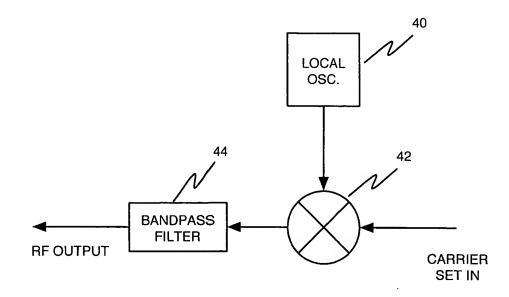


FIGURE 4A

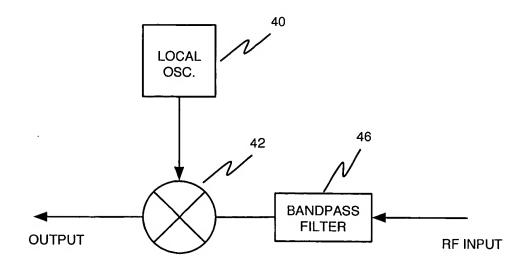
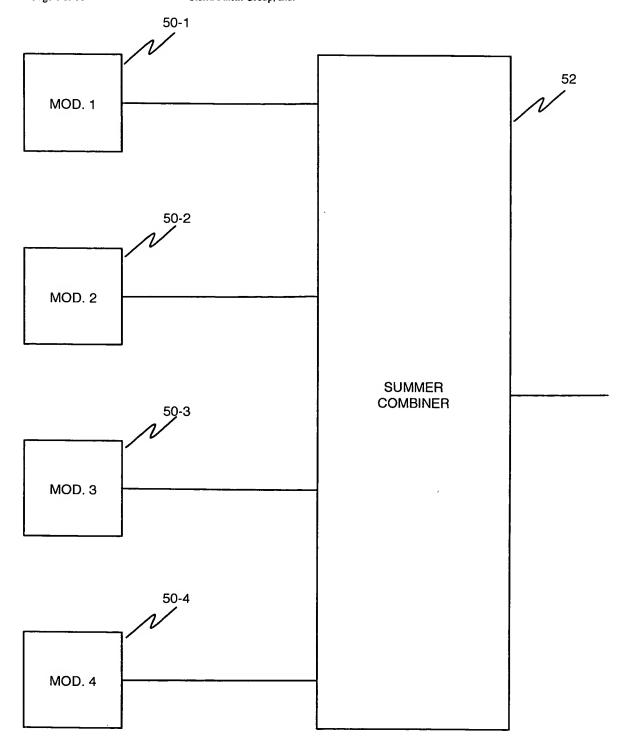


FIGURE 4B

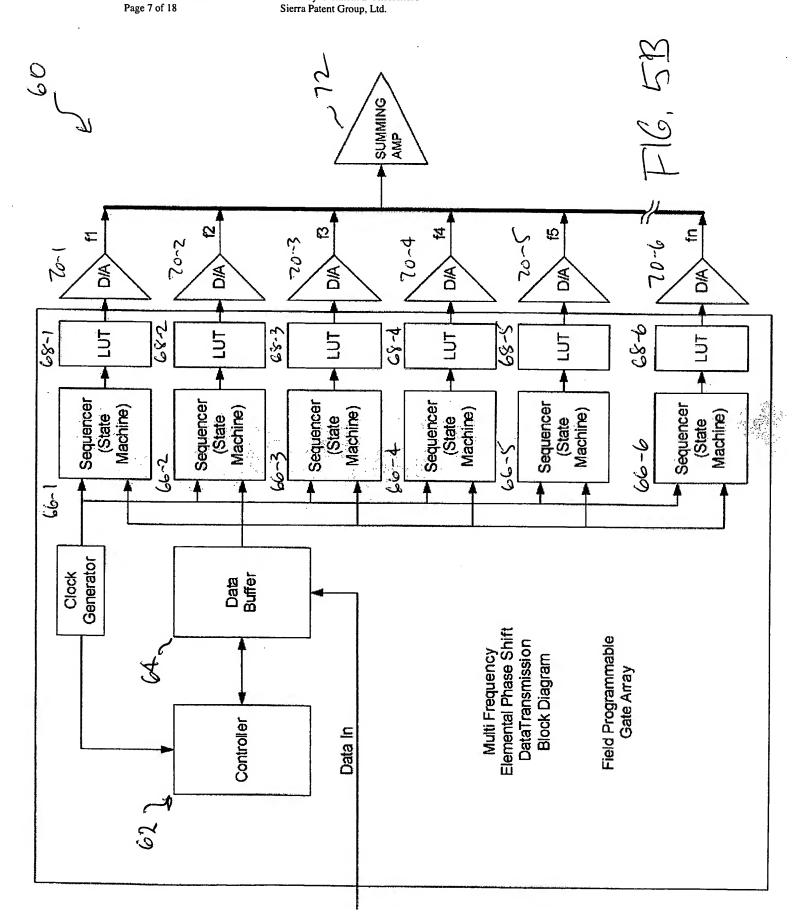
Filed: April 16, 2004
Title: Single and Multiple Sinewave Modulation and Demodulation Techniques, Apparatus and...
Attorney: Kenneth D'Alessandro
Sierra Patent Group, Ltd.

Docket No.: PIPE-001 Page 6 of 18

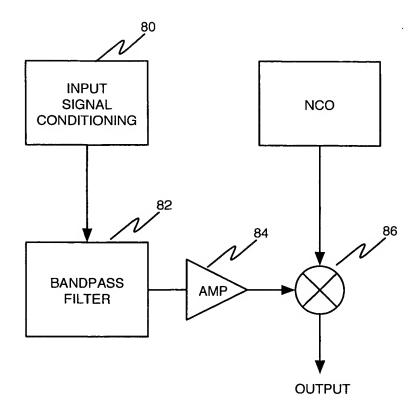


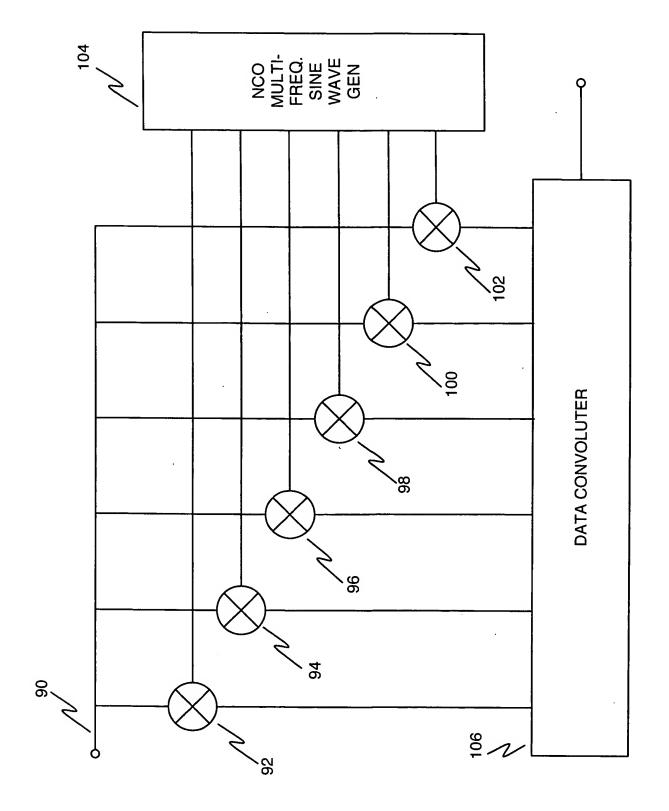
Express Mail: EV247589320US Inventor: Brown et al. Docket No.: PIPE-001

Filed: April 16, 2004 Title: Single and Multiple Sinewave Modulation and Demodulation Techniques, Apparatus and...



Express Mail: EV247589320US Inventor: Brown et al. Docket No.: PIPE-001 Page 8 of 18





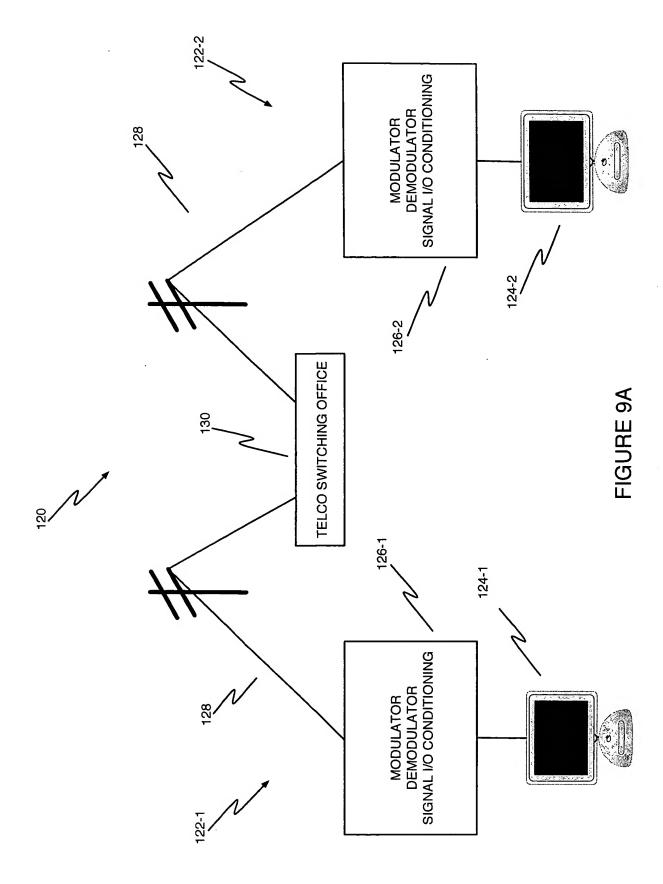
Express Mail: EV247589320US
Inventor: Brown et al.
Docket No.: PIPE-001
Page 10 of 18 MODULATED
CINEWALANCE

Filed: April 16, 2004
Title: Single and Multiple Sinewave Modulation and Demodulation Techniques, Apparatus and...
Attorney: Kenneth D'Alessandro
Sierra Patent Group, Ltd. +V SINEWAVE INPUT 110 114 112-2 112-3 **LOGIC AND LED DRIVER** 112-4 112-5

FIGURE 8

Docket No.: PIPE-001 Page 11 of 18

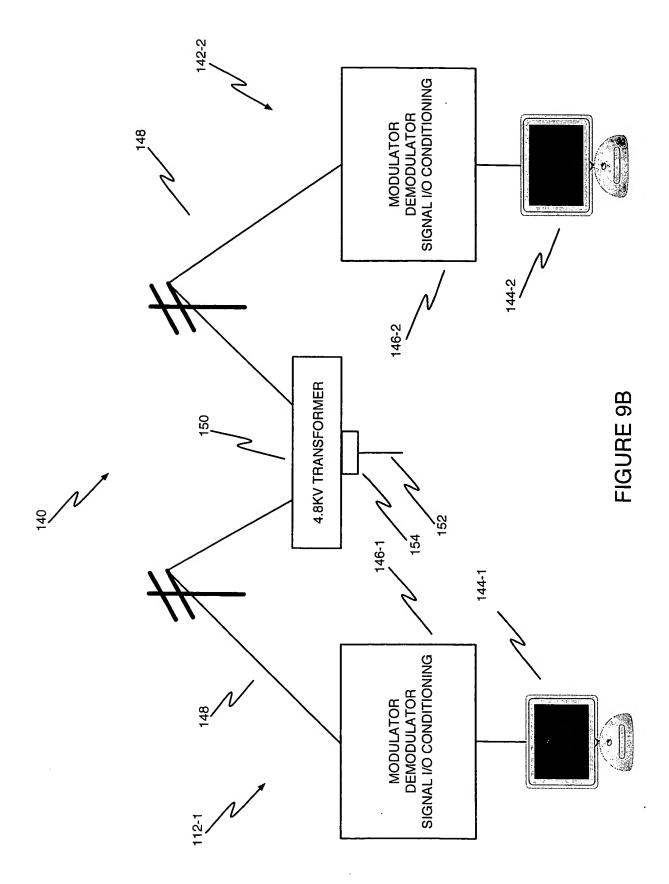
Filed: April 16, 2004 Title: Single and Multiple Sinewave Modulation and Demodulation Techniques, Apparatus and...



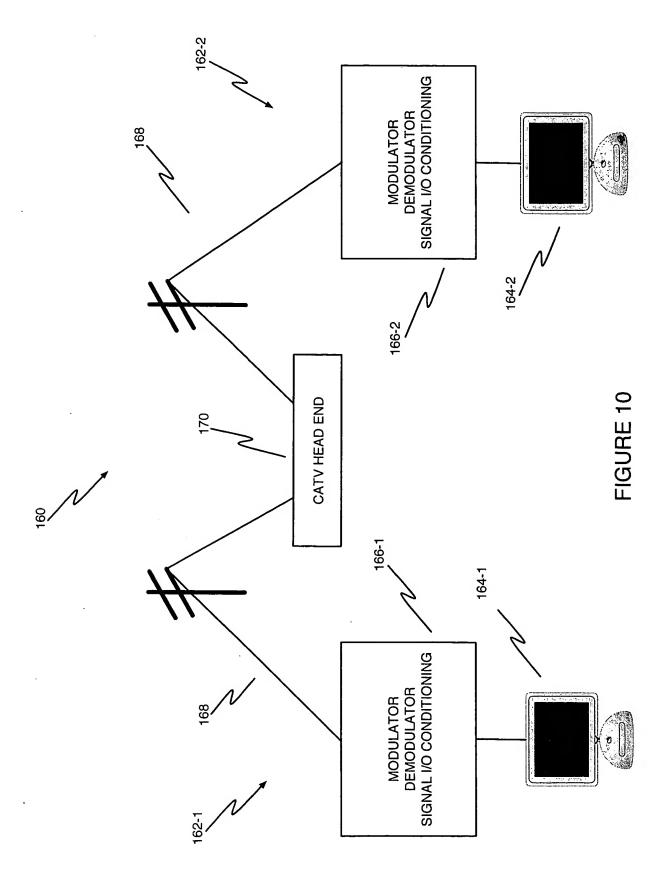
Page 12 of 18

Filed: April 16, 2004
Title: Single and Multiple Sinewave Modulation and Demodulation Techniques, Apparatus and...
Attorney: Kenneth D'Alessandro

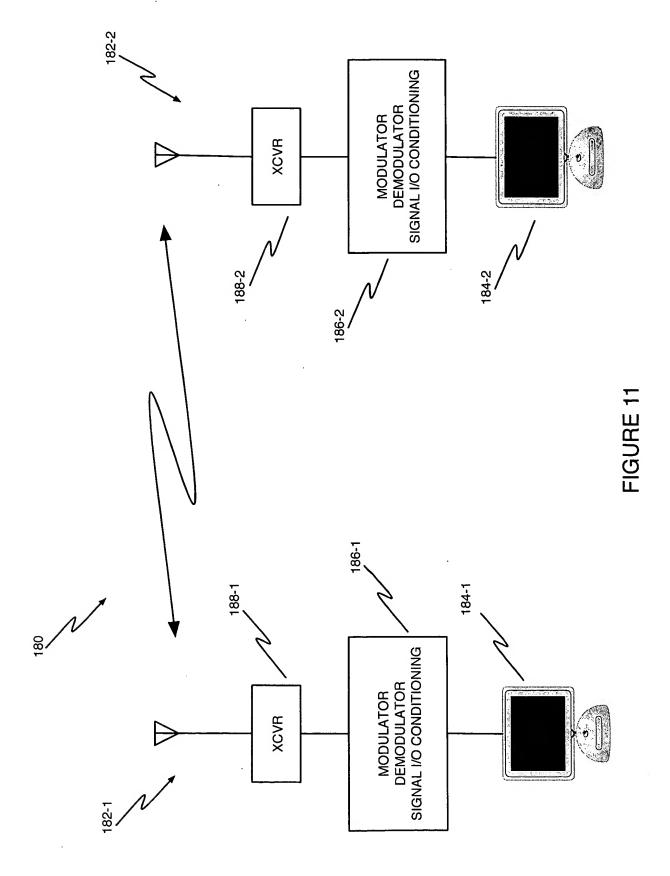
Sierra Patent Group, Ltd.



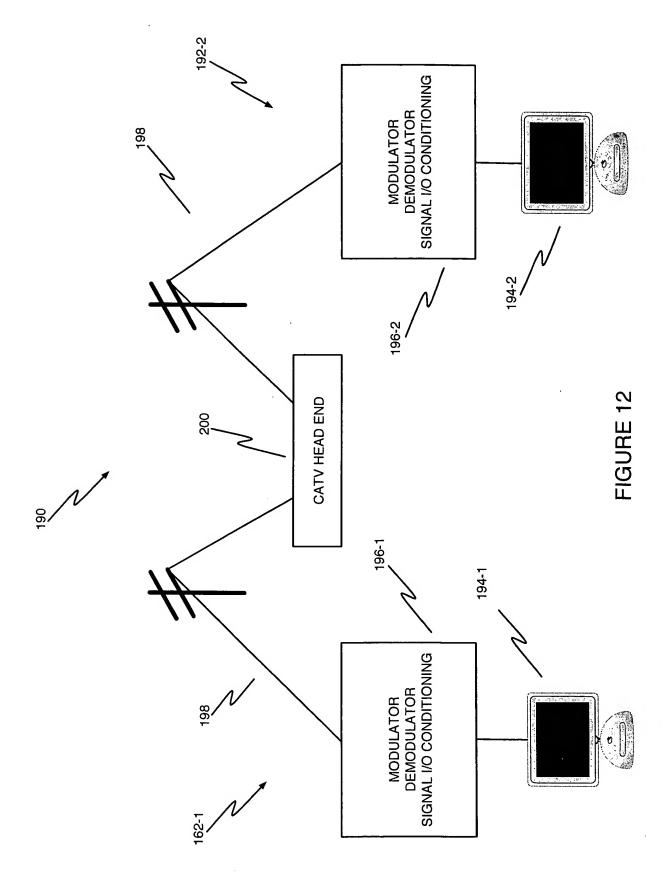
Express Mail: EV247589320US Inventor: Brown et al. Docket No.: PIPE-001 Page 13 of 18



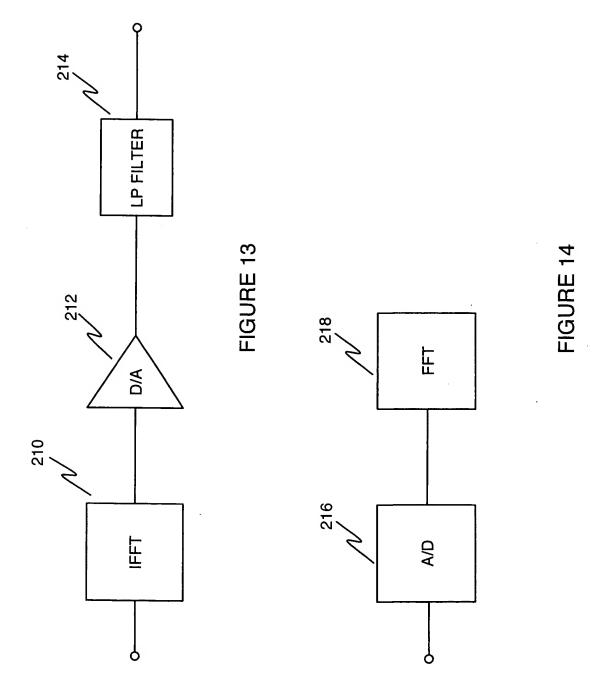
Express Mail: EV247589320US Inventor: Brown et al. Docket No.: PIPE-001 Page 14 of 18



Express Mail: EV247589320US Inventor: Brown et al. Docket No.: PIPE-001 Page 15 of 18



Express Mail: EV247589320US Inventor: Brown et al. Docket No.: PIPE-001 Page 16 of 18



Docket No.: PIPE-001 Page 17 of 18

Filed: April 16, 2004
Title: Single and Multiple Sinewave Modulation and Demodulation Techniques, Apparatus and...
Attorney: Kenneth D'Alessandro

Sierra Patent Group, Ltd.

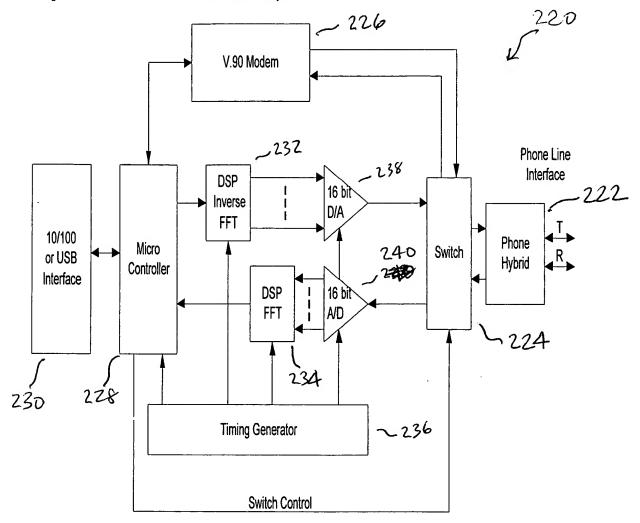
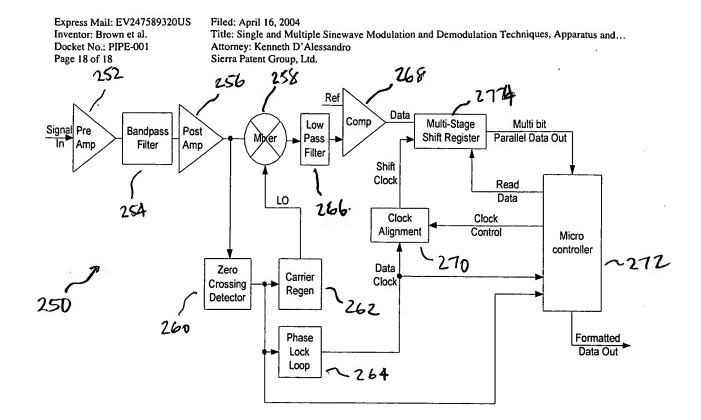


FIG. 15



Multi-bit Sinewave Receiver Block Diagram

F16,16